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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/080,619	02/25/2002	Michihiro Imada	742421-0050	8108

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EXAMINER	
TRAN, BINH Q	
ART UNIT	**PAPER NUMBER**
3748	

DATE MAILED: 02/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/080,619	IMADA ET AL.	
	Examiner	Art Unit	
	BINH Q. TRAN	3748	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *9 and 10* is/are allowed.

6)☒ Claim(s) *1* is/are rejected.

7)☒ Claim(s) *2-8* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *02/18/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
> (e) the invention was described in-
> (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
> (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claim 1 is rejected under 35 U.S.C. 102 (b) as being anticipated by Kakuyama et al. (Kakuyama) (Patent Number 6,490,859).

Regarding claim 1, Kakuyama discloses a exhaust-gas cleaning device (3) for an engine (1), said exhaust-gas cleaning device comprising: an HC-adsorbing catalytic converter (3) disposed in an exhaust passage, the HC-adsorbing catalytic converter including: an HC-adsorbing material which adsorbs HC contained in exhaust gas and releases adsorbed HC as temperature increases (e.g. See col. 10, lines 30-67; col. 11, lines 1-34); an oxygen storage material which occludes oxygen when the concentration of oxygen in the exhaust gas is high and releases occluded oxygen as the oxygen concentration drops (e.g. See col. 2, lines 50-67; col. 10, lines 20-41); and an oxidizing catalytic metal which oxidizes HC released from the HC-

adsorbing material (e.g. See col. 11, lines 41-67; col. 12, lines 1-20); and an oxygen concentration controller (e.g. 4, 5, 6) which controls the oxygen concentration in the exhaust gas on the upstream side of the HC-adsorbing catalytic converter in such a manner that oxygen is released from the oxygen storage material when the engine is in an operating condition in which HC is released from the HC-adsorbing material (e.g. See col. 10, lines 30-67; col. 11, lines 1-34).

Claim 1 is rejected under 35 U.S.C. 102 (b) as being anticipated by Yamanashi et al. (Yamanashi) (Patent Number 6,220,018).

Regarding claim 1, Yamanashi discloses a exhaust-gas cleaning device (9, 10) for an engine (1), said exhaust-gas cleaning device comprising: an HC-adsorbing catalytic converter (9, 10) disposed in an exhaust passage, the HC-adsorbing catalytic converter including: an HC-adsorbing material which adsorbs HC contained in exhaust gas and releases adsorbed HC as temperature increases (e.g. See col. 2, lines 28-67; col. 3, lines 1-5); an oxygen storage material which occludes oxygen when the concentration of oxygen in the exhaust gas is high and releases occluded oxygen as the oxygen concentration drops (e.g. See col. 2, lines 28-67; col. 3, lines 1-5); and an oxidizing catalytic metal which oxidizes HC released from the HC-adsorbing material (e.g. See col. 2, lines 28-67; col. 3, lines 1-5); and an oxygen concentration controller (e.g. 13) which controls the oxygen concentration in the exhaust gas on the upstream side of the HC-adsorbing catalytic converter in such a manner that oxygen is released from the oxygen storage material when the engine is in an operating condition in which HC is released from the HC-adsorbing material (e.g. See col. 3, lines 18-67; col. 4, lines 1-50).

Allowable Subject Matter

Claims 9-10 are allowed.

Claims 2-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance: The prior art fails to disclose or render obvious the claimed combination including a an oxygen concentration controlling means for controlling the oxygen concentration in the exhaust gas on the upstream side of the HC-adsorbing catalytic converter in such a manner that oxygen is released from the oxygen storage material when the engine is in an operating condition in which HC is released from the HC-adsorbing material and the oxygen concentration controlling means controls the engine in such a manner that the oxygen concentration in the exhaust gas on the upstream side of the HC-adsorbing catalytic converting means becomes equal to or less than 0.3% when the engine is in the operating condition in which HC is released from the HC-adsorbing material.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Since allowable subject matter has been indicated, applicant is encouraged to submit formal drawings in response to this Office action. The early submission of formal drawings will permit the

Office to review the drawings for acceptability and to resolve any informalities remaining therein before the application is passed to issue. This will avoid possible delays in the issue process.

Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure and consists of five patents:

Ishii et al. (Patent Number 6170260), Yamamoto et al. (Patent Number 6047544), Hasenaga et al. (Patent Number 6601383), Tsuzuki et al. (Patent Number 6185933), and Kinugasa et al. (Patent Number 5979157) all discloses an exhaust gas purification for use with an internal combustion engine.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Binh Tran whose telephone number is (571) 272-4865. The examiner can normally be reached on Monday-Friday from 8:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion, can be reach on (571) 272-4859. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and for After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BT
February 18, 2005

Binh Q. Tran
Patent Examiner
Art Unit 3748